IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicants:

Tony T. Coon et al.

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§ Examiner:

Tariq S. Najee-Ullah

For:

Method and Apparatus for

Atty. Dkt. No.:

200312026-1

Characterizing a Network

\$ \$ \$ \$ \$

(HPC.0498US)

Connection

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Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

REPLY BRIEF

Sir:

The following sets forth Appellant's Reply to the Examiner's Answer dated February 2, 2009.

I. REPLY TO EXAMINER'S ANSWER REGARDING CLAIMS 1, 3-10, 21, 23-31, 33-41, 43-50

The Examiner's Answer cited new passages of Engel against various elements of claim 1. However, even in view of these newly cited passages of Engel, it is respectfully submitted that the obviousness rejection of claim 1 over Engel and Lovett is still erroneous for the following reasons.

The Response to Argument section of the Examiner's Answer stated that "Lovett is relied upon to teach the terminology of a 'protocol engine'..." 2/2/2009 Examiner's Answer at 10. However, just because the terminology "protocol engine" is used in Lovett does not mean that the protocol engine of Lovett performs the tasks of claim 1. As explained in the Appeal Brief,

the protocol engine of Lovett performs tasks that are quite different from the tasks of the protocol engine recited in claim 1.

Lovett describes a bus-based interrupt mechanism to communicate interrupts within and between the nodes of a multinode multiprocessor system. Lovett, 2:54-62. The protocol engine of Fig. 5 of Lovett includes an interrupt controller 46 that receives an interrupt placed onto a bus and processes such interrupt. *Id.*, 5:43-6:15. Conveying an interrupt to the protocol engine of Lovett is **not** the same as conveying at least one parameter that specifies a network connection to a protocol engine that implements a protocol stack, as recited in claim 1.

The protocol engine of Lovett also fails to provide the following: state variable information pertaining to the network connection that is according to the conveyed at least one of the received parameters that specify the network connection, where the state variable information can be used to sense when the network connection is initiated. The protocol engine of Lovett has a state machine (52) that looks in a queue for an available interrupt, selects the available interrupt with the highest priority, and communicates that interrupt to a remote node. *Id.*, 6:16-33. Sending an interrupt by the protocol engine of Lovett to a remote node is not the same as sending state variable information pertaining to the network connection that is according to the conveyed at least one received parameter that specifies the network connection, where the state variable information provided by the protocol engine can be used to sense when the network connection is initiated, as recited in claim 1.

The Examiner's focus on use of the term "protocol engine" in Lovett, without any regard to what the protocol engine of Lovett actually does, constitutes a first point of error in the obviousness rejection.

Moreover, the Examiner has also erred in arguing that Engel discloses the following combination of elements of claim 1.

- receiving state variable information from the protocol engine pertaining to the network connection according to the conveyed at least one of the received parameters;
- sensing when the network connection is initiated according to the received state variable information; and

As purportedly disclosing the "receiving" element above, the Response to Argument section of the Examiner's Answer pointed to the teaching in column 11 of Engel regarding a state machine that is in a real time parser (RTP) 32 of Engel. As disclosed by Engel, the state machine within the RTP 32 is responsible for tracking the state of a connection based on past observed frames and by keeping track of sequence numbers. Engel, 11:38-45. As stated by Engel, the objectives of the state machine are to keep a brief history of events, state transitions and sequence numbers per connection; to detect a data transfer state so that sequence tracking can begin; and to count inconsistencies. *Id.*, 11:47-52.

It appears that the Examiner's rejection is based on a misconstruction of the phrases "state variable information" and "parameters" to mean the same thing. On page 3 of the Examiner's Answer, the Examiner stated that the Examiner is interpreting "state variable information" and "parameters" in light of the specification "to describe the condition of the protocol stack at a particular instant in time." There is nothing in the specification that defines "state variable information" and "parameters" to mean the same thing.

The Examiner stated that the state machine of Engel "receives parameters that specify a connection." Examiner's Answer at 10. The Examiner also stated that these parameters are the sequence numbers in past observed frames. However, these parameters do not constitute the state variable information that is received from the protocol engine pertaining to the network

connection according to the conveyed at least one of the received parameters. By arguing that the state machine of Engel receives "parameters" rather than "state variable information" as claimed, it is apparent that the Examiner is equating "parameters" and "state variable information" to be the same thing, which is clearly improperly. The claim element at issue uses both phrases: "receiving **state variable information**" from the protocol engine pertaining to the network connection **according** to the conveyed at least one of the **received parameters**," which clearly indicates that "state variable information" and "parameters" are not intended to have the same meaning.

Although the state machine in the RTP 32 of Engel receives sequence numbers and past observed frames, there is no indication that the state machine in the RTP 32 of Engel receives state variable information from the protocol engine pertaining to the network connection according to the conveyed at least one of the received parameters, as recited in claim 1.

With respect to the "sensing" element of claim 1, the Examiner cited column 2, lines 42-45, of Engel. This cited passage of Engel refers to maintaining a current state for each dialog, where the current state is updated in response to detecting contents of transmitted packets. The cited passage in column 2 of Engel also states that for each dialog, a history of events is maintained based on information derived from the contents of packets. However, this passage of Engel does not disclose sensing when the network connection is initiated according to received state variable information from the protocol engine.

Page 11 of the Examiner's Answer stated that detecting that a retransmission has occurred is the same as sensing when a network connection is initiated. That statement is incorrect. Retransmission merely refers to retransmitting a data frame, which is not the same as sensing when a network connection has been initiated.

In view of the foregoing and in view of the arguments set forth in the appeal brief, it is respectfully submitted that the obviousness rejection of independent claim 1 (and of independent claims 21, 31, and 41), and their respective dependent claims is erroneous.

II. REPLY TO EXAMINER'S ANSWER REGARDING CLAIMS 15-18

With respect to claim 15, the Examiner now argues (in the Examiner's Answer) that Engel discloses a format table to convert the state variables into a print stream. Examiner's Answer at 14. Specifically, the Examiner referred to a history data structure mentioned in columns 22 and 23 of Engel, which the state machine uses to remember the current state of the connection. The Examiner also referred to a summary tool in Engel that displays network operation status with statistical information. However, there is nothing in Engel to even remotely hint at a format table to convert the state variables (that are retrieved from a computer readable medium according to a connection specifier) into a print stream, as recited in claim 15. The Examiner merely made a conclusory statement that this feature of claim 15 would be obvious, without citing to any specific evidence that would have established that this element was known to a person of ordinary skill in the art.

Therefore, the obviousness rejection of claim 15 and its dependent claims is further defective for this additional reason.

III. CONCLUSION

In view of the foregoing, and in view of the arguments set forth in the Appeal Brief, reversal of all final rejections is respectfully requested.

Respectfully submitted,

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